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Serial Number: 10/820,561
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Applicant: Tong Zhang
Appn. Title: Single-Mode Operation and Frequency Conversions for Solid-State Lasers
Examiner: Armando Rodriguez / GAU 2828

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Salt Lake City, UT 84115

SUPPLEMENT OF INFORMATION DISCLOSURE STATEMENT

COMMISSIONER FOR PATENTS
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Dear Examiner:

This letter, the Supplement of Information Disclosure Statement, is to provide some newly discovered references along with a completed Form PTO-1449 and the copies of these references cited thereon. It is respectfully requested that this Supplement of IDS will be entered and the references listed be considered by the Examiner and made of record. Following is a concise explanation of the relevance of these references pursuant to Rule 98.

1. John Wallace; "Single-frequency laser has diamond intracavity filter"; Laser Focus World October, 2005. In this paper, a high-power, single-frequency, long-wavelength VECSEL is presented. A thin (50 μm thick) diamond heat-spreader etalon is employed to simultaneously remove heat, perform spectral filtering, and stabilize the laser's wavelength. Such a laser arrangement possesses each of the limitations claimed in claim 10 of the above reissue patent application

2. J. L. A. Chilla, H. Zhou, E. Weiss, A. L. Caprara, Q. Shou, S. V. Govorkov, M. K. Reed, L. Spinelli; "Blue & Green Optically-Pumped Semiconductor Lasers for Display"; Projection Displays XI, edited by Ming H. Wu, Proceedings of SPIE Vol. 5740 (SPIE, Bellingham, WA,

2005). In this presentation Coherent's scientists and engineers described their blue & green optically-pumped semiconductor lasers (OPS) for laser TV or display. The arrangement of such lasers shown in Fig. 2 extrinsically or inherently possesses each of the limitations claimed in claim 10 of the above reissue patent application.

3. Norman Hodgson; "Continuous Wave Blue and Green TEM00 Mode Solid State Lasers: State-of-the-Art and Applications"; Solid State Lasers XIV: Technology and Devices, edited by Hanna J. Hoffman, Ramesh K. Shori, Proceedings of SPIE Vol. 5707 (SPIE, Bellingham, WA, 2005). Author described the arrangement in Fig. 7 of Coherent's Sapphire laser or OPS same as that of above in Fig. 2. Author also presented the laser arrangement in Fig. 11 of a doubled surface emitting semiconductor laser, referred to as a NECSEL, which was introduced by Novalux. This system uses a 980nm vertical-external cavity surface-emitting laser (VECSEL or VCSEL) with embedded resonator and an external resonator. The coupled cavity design functioned as an inserted etalon provides single mode operation. Both of them extrinsically or inherently possess each of the limitations claimed in claim 10 of the above reissue patent application.

4. Lynne G. Morton¹, Jennifer E. Hastie¹, Hannah D. Foreman¹, Andrey B. Krysa², John S. Roberts² and Martin D. Dawson¹; "Red VECSEL Frequency doubled to the Ultraviolet"; Institute of photonics, Tenth Anniversary Open Day 2006. In this paper a vertical-external cavity surface-emitting laser (VECSEL) is used to produce UV light via intracavity SHG. This laser arrangement also possesses each of the limitations claimed in claim 10 of the above reissue patent application while under single longitudinal mode operations.

Respectfully submitted,



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